



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,663	02/27/2002	A. K. Gunnar Aberg	559P017	3512

7590  
Kevin S Lemack  
Nields & Lemack  
176 East Main Street  
Westboro, MA 01581

04/03/2003

EXAMINER

HUANG, EVELYN MEI

ART UNIT	PAPER NUMBER
----------	--------------

1625

DATE MAILED: 04/03/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/069,663

Applicant(s)

ABERG ET AL.

Examiner

Evelyn Huang

Art Unit

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Priority*

1. This is a 371 of PCT/US00/24892. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification of in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)).

### *Specification*

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet (not the first page of the PCT application) is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-13, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Polivka I (CS 263993) or Polivka II (Coll. Czech. Chem. Commun. 1989, 54(9), 2443-69, PTO-1449), wherein pure enantiomers of ketotifen and their biological activities are described (Polivka I, pages 7-10, Examples 1, 3; Polivka II, page 2456-7). The administration of a pure enantiomer of ketotifen to an animal in need thereof would inherently lead to the corresponding norketotifen, 10-hydroxy ketotifen and 10-hydroxy-norketotifen, which are metabolites of ketotifen (Le Bigot, Life Sciences, 40, 883-890, PTO-1449, page 889, Fig. 2). The lack of side effects of the enantiomer as recited in the instant method claim 7 is intrinsic to the compound.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polivka I (CS 263993) or Polivka II (Coll. Czech. Chem. Commun. 1989, 54(9), 2443-69, PTO-1449) in view of Le Bigot (Life Sciences, 40, 883-890, PTO-1449) and Bourquin (3862156, PTO-1449) and Kofler (Experimental Chemistry. Organic Chemistry and Reaction. Pages 504-505, PTO-1449).

Pure enantiomers of ketotifen and their biological activities are described in Polivka I (pages 7-10, Examples 1, 3) and in Polivka II (page 2456-7). Alternative procedure for the resolution of the racemate is described by Kofler (pages 504-505).

While Polivka I or II does not specifically disclose the enantiomers of norketotifen, hydroxy ketotifen and hydroxy-norketotifen as recited in the instant claims, administration of a pure enantiomer of ketotifen to an animal would lead to the corresponding norketotifen, 10-hydroxy ketotifen and 10-hydroxy-norketotifen since they are known metabolites in vivo (Le Bigot, Life Sciences, 40, 883-890, PTO-1449, page 889, Fig. 2). The chemical synthesis of the 10-hydroxy ketotifen is also described by Bourquin (columns 5-6, Example 3).

Since Polivka I (page 7) and Polivka II (page 2456-7) have shown the R and S isomers have different affinities for histamine-H1 receptors, muscarinic receptors and have different antianaphylactic effect, one of ordinary skill in the art would be motivated to resolve the racemate into pure enantiomers to optimize the desired activity. The lack of side effects of the enantiomer as recited in the instant method claim 7 is intrinsic to the compound.

While the above references do not recite the topical, dermal, transdermal, rectal etc. administration or different physical forms of the composition as recited in the instant claims 13-

Art Unit: 1625

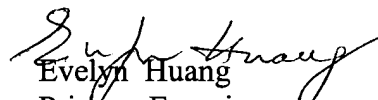
20, such formulations and modes of administration are well known in the pharmaceutical art and are routines for one of ordinary skill in the art.

While the specification discloses that the instantly claimed compound has little or no sedative side effect (page 3), and the procedure for studying sedative effects is found on page 11, no test results are shown, without which unexpected results cannot be established; the instant therefore remains obvious over the prior art of record.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn Huang whose telephone number is 703-305-7247. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alan Rotman can be reached on 703-308-4698. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4556 for regular communications and 703-308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

  
Evelyn Huang  
Primary Examiner  
Art Unit 1625

\*\*\*

March 19, 2003